Speed formula for all cases

v= Δd/Δt

Δ means the change in the variable

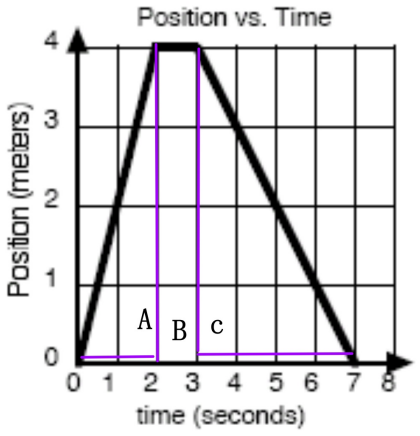
delta

$$v = \frac{d_f - d_i}{t_f - t_i}$$

final or at end

initial or at start

negative numbers means going backwards



$v = \frac{d}{t}$

Find Speed at

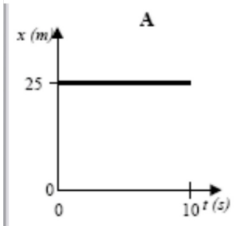
A)

B)

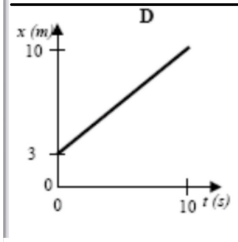
C) $\frac{0-4}{7-3} = \frac{-4}{4} = -1$

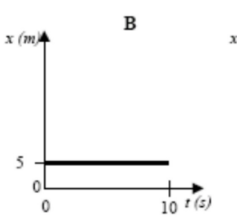
-1 m/sec

Describe the motion of the object in words:

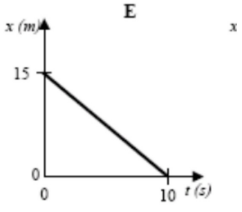


- Describe the motion in words.
- Calculate the speed

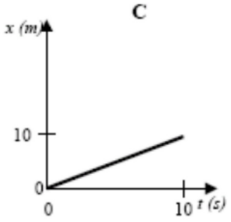




- Describe the motion in words.
- Calculate the speed

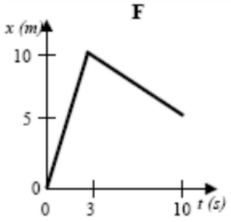


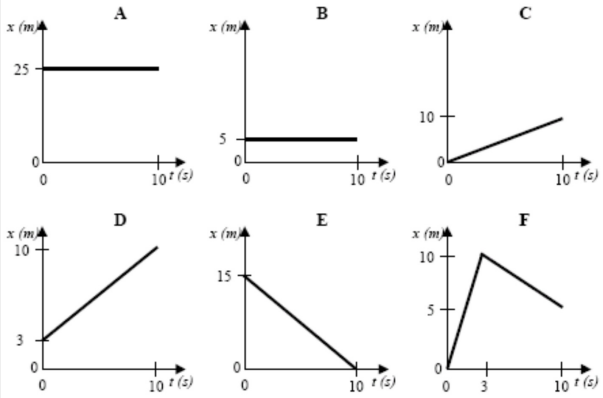
C



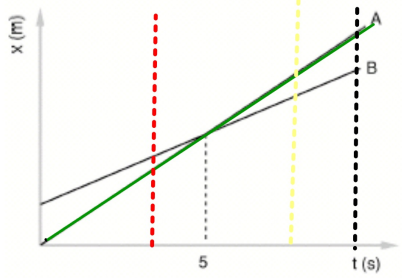
- **Describe the motion in words.**
- **Calculate the speed**

F





3. Consider the position vs. time graph below for cyclists A and B.



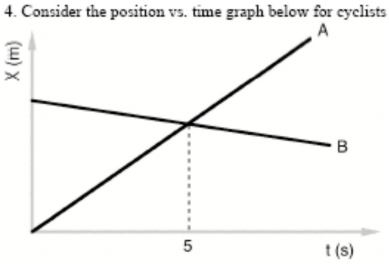
a.Do the cyclists start at the same point? How do you know? If not, which is ahead?

b.At t= 7s, which cyclist is ahead? How do you know?

c.Which cyclist is traveling faster at 3s? How do you know?

e.What is happening at the intersection of lines A and B?

4. Consider the position vs. time graph below for cyclists A and B.



a.Do the cyclists start at the same point? How do you know? If not, which is ahead?

b.At t= 7s, which cyclist is ahead? How do you know?

c.Which cyclist is traveling faster at 3s? How do you know?

e.What is happening at the intersection of lines A and B?